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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/886,521	06/20/2001	Charles A. Miller	3401P097	6403

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EXAMINER

NGUYEN, TRUC T

ART UNIT PAPER NUMBER

2833

DATE MAILED: 05/18/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/886,521

Applicant(s)

MILLER ET AL.

Examiner

Truc T. T. Nguyen

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-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☒ Claim(s) 14-16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kuballa (US 4,139,727).

Kuballa disclose an apparatus comprising:

a substrate (17) a plurality of through holes (14); and

a plurality of cables (1) each comprising a conductor (10), each cable extending through respective ones of the plurality of through holes of the substrate (see Figures 3-4) and terminating about a surface of the substrate such that the conductors of the respective ones of the plurality of cables are planarly aligned and available for electrical contact.

3. Claims 1-7, and 10-13 are rejected under 35 U.S.C. 102(e) as being anticipated by Maeda (US 6,152,744).

Regarding claims 1-2, Maeda disclose an apparatus comprising:

a substrate (1) having a plurality of through holes (un-numbered, see Figure 7); and

a plurality of coaxial cables (29), each comprising a conductor (30) and a shield (34) extending through respective one of the plurality of through holes of the substrate and terminating about a surface of the substrate such that the conductors of the respective ones of the plurality of cables are planarly aligned and available for electrical contact (see Figures 6 & 7).

Regarding claim 3, Maeda discloses the through holes of the substrate are configured such that conductors (30) are aligned with respective contact points (16) of an electronic component (6).

Regarding claim 4, Maeda discloses the electronic component (6) is a circuit test component of testing socket (1).

Regarding claim 5, Maeda discloses the electronic component (6) is an interposer.

Regarding claim 6, Maeda disclose the surface of the substrate comprise of dielectric material.

Regarding claim 7, Maeda discloses contact pads (16) are coupled to respective conductors at the surface of the substrate.

Regarding claim 10, Maeda discloses the plurality of cables comprise first conductors (29) designated as data signal line between the first electronic component (6) and a second electronic component (not show, which will be connected to a free end of the cable 29, see Figure 6).

Regarding claims 11 and 12, Maeda disclose the second group of cables (29) dispose in different second area (see Figure 6, group of cable 26 on the right area) but silently whether those cable could be used for supply and return lines or not. It has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not

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differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitation. *Ex Parte Masham*, 2 USPQ2d 1647 (1987).

Regarding claim 13, Maeda disclose the first conductor is disposed in a first area (see Figure 6, group of cable 29 on the left area).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maeda (US 6,152,744) in view of Finn et al. (US 6,233,818).

Maeda substantially disclose the claimed invention except for the conductor being coat with one of gold, platinum, palladium, or other metallic conductor.

Finn et al. teach a contact (138) being coated with gold (145).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a gold coating into Maeda's conductor, as taught by Finn et al. for increasing the oxidation resistance (column 15, lines 40-55).

*Allowable Subject Matter*

6. Claims 14-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is an examiner's statement of reasons for allowance:

The prior art of record fails to teach a second substrate coupled to the first substrate.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

*Response to Arguments*

Applicant's arguments filed 2/4/04 have been fully considered but they are not persuasive. Because:

a) In response to the Applicant's argument on page 7 that the Kuballa's reference does not teach "cables terminating *about* a surface... and are *planarly* aligned". The Examiner respectfully disagrees. Kuballa disclose the free ends (10) of the cable (10) are terminating about (*proximate or nearly*) to the bottom surface of the circuit board (17). All of the free ends are equally terminated at a distance from the bottom surface, therefore the free ends of cable are planarly aligned.

b) In response to the Applicant's argument on page 8, that the Maeda's reference does not teach "cables terminating *about* a surface... and are available for electrical contact". The

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Examiner respectfully disagrees. Maeda disclose the free ends (30) of the cable (29) are terminating about (*proximate or nearly*) to the top surface of the body (1). The free ends are available for making electrical contact to the member (16).

c) In response to the applicant's argument on page 9, that the Maeda's reference does not teach "first conductors designated as data signal lines and second conductors as supply and return lines". The Examiner's respectfully disagrees. The examiner has explained why this feature of the present invention do not overcome the Maeda's reference (see the rejection above).

### ***Conclusion***

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Truc T. T. Nguyen whose telephone number is 571-272-2011.

The examiner can normally be reached on 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on 571-272-2800 extension 33. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'T. Nguyen', with a long horizontal stroke extending to the right.

T. Nguyen  
May 6, 2004